

Appl. No.
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to the polynucleotide target sequence, and at least one nuclease-resistant, binding moiety on a 5' end.

45. (New) The method of claim 44, wherein, said nuclease-resistant, binding moiety is a PNA molecule and/or one or more phosphorothioate molecules.

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REMARKS

The specification has been amended to correct minor typographical errors. Also, an additional sentence has been added to the specification. The sentence is supported by the disclosure of U.S. Patent Number 5,459,127, the disclosure of which was incorporated by reference in its entirety in the application as filed. See the specification at page 9, lines 2-4.

Claim 3 was amended. Claim 4 was cancelled. New claims 5-45 have been added. Support for the amendment and new claims is found in the specification, including the claims, as filed and the specification as amended above. No other changes have been made by this Preliminary Amendment, and no new matter has been added.

The specific changes to the specification and the amended claims are shown on a separate set of pages attached hereto and entitled VERSION WITH MARKINGS TO SHOW CHANGES MADE, which follows the signature page of this Amendment. On this set of pages, the insertions are double underlined while the [deletions are in brackets and bolded].

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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Dated:

22 JAN 2001

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION

Please amend the paragraph on page 6, line 26 accordingly:

In addition, molecules called PNA "clamps" have been synthesized which have two identical PNA sequences joined by a flexible hairpin linker containing three 8-amino-3,6-dioxaoctanoic acid units. When a PNA clamp is mixed with a complementary homopurine or homopyrimidine DNA target sequence, a PNA-DNA-PNA triplex hybrid can form which is extremely stable (Bentin et al., *Biochemistry* 35:8863-8869, 1996; Egholm et al., *Nucleic Acids Res.* 23:217-222, 1995; Griffith et al., *J. Am. Chem. Soc.* 117:831-832, 1995). The sequence-specific and high affinity duplex and triplex binding of PNA have been extensively described (Nielsen et al., *Science* 254:1497-1500, 1991; Egholm et al., *J. Am. Chem. Soc.* 114:9677-9678, 1992; Egholm et al., *Nature* 365:566-568, 1993; Almarsson et al., *Proc. Natl. Acad. Sci. U. S. A.* 90:9542-9546, 1993; Demidov et al., *Proc. Natl. Acad. Sci. U. S. A.* 92:2637-2641, 1995). They have also been shown to be resistant to nuclease and protease digestion (Demidov et al., *Biochem. Pharm.* 48:[1010-1013]1310-1313, 1994). DNA analogs such as phosphorothioate are also contemplated herein (see U.S. Patent No. 5,459,127).

IN THE CLAIMS

3. (Amended) The method of claim 1, wherein said promoter-containing sequence and said terminator-containing sequence further comprise a [non-DNA, binding moiety capable of interacting with said second DNA fragment] PNA binding domain.